

Mississippi State Department of Health

# Meningococcal Infection and Meningococcal Vaccine

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Facts for Adolescents and Teenagers



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Middle and high school students thought that when they entered kindergarten, their days of “shots” were over. Times change, diseases change, and medicine has advanced to meet the challenges of change. During the past year vaccines have been developed targeted specifically for adolescents and teenagers. The future will see more and more vaccines for this age group, resulting in fewer illnesses, healthier lives, more time for study and (most importantly) more time for fun and games.

# Meningococcal Infection and Meningococcal Vaccine

Meningococcal disease is a rare cause of meningitis, an infection and swelling of the brain and spinal cord which can result in permanent brain damage and death.

It is caused by a microscopic bacterium, and is treated with antibiotics and hospitalization for 1-2 weeks.

The bacterium may also cause a serious blood infection, meningococemia, which can result in loss of toes, fingers, limbs or even death.

## Signs & Symptoms

- Fever
- Headache
- Stiff neck
- Nausea and vomiting
- Rash, from small red pinpoint spots to quarter-sized or larger bruises (rash does not occur in all cases)

## Cause

Bacteria: *Neisseria meningitides*,  
types A, B, C, Y, W-135

## Long-Term Effects

- 10 – 15% of cases are fatal
- 40<sup>+</sup>% of survivors have permanent hearing loss, mental retardation, loss of whole or part of limbs or digits, seizures or other serious consequences

## Transmission

- Spreads through air droplets and direct contact from respiratory secretions of persons with the bacteria in nose or throat, even though they show no symptoms.
- Coughing, kissing, and sharing cigarettes, toothbrushes, utensils, cups, or lip balm—anything an infected person touches with his or her mouth.
- Peak occurrence is in late winter or early spring when students are at school.



## High School Students and College Freshmen are at Highest Risk

- 2,500 – 5,000 cases of meningococcal disease occur in the USA each year.
- Meningococcal infection is highest in adolescents and teenagers.  
**College freshmen living in dormitories are at even greater risk.**
- College freshmen and adolescents live busy active lifestyles which can favor the spread of germs from the respiratory tract.
- Approximately 10% of people carry the meningitis bacterium in their nose with no symptoms, and usually without developing the disease.
- The adolescent school and social lifestyles favor the spread of the bacteria, which can result in disease, permanent damage and even death **(of all the deaths from meningococcus, about 20% occur in adolescents, the highest of any age group).**

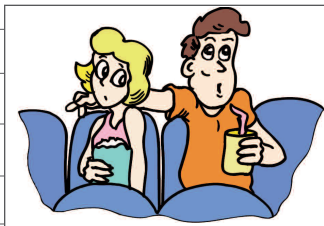
## Prevention

Menactra™, a vaccine for meningococcal disease (types A, C, Y, W-135)

- Inactivated (killed) bacteria, one dose
- Provides over 85% protection
- Of the approximately 250-300 cases per year in adolescents in the USA, vaccination would reduce the number of cases to about 50 — 60 cases nationwide (Mississippi cases would be reduced to 1 or 2).
- Side effects are generally mild and of short duration, consisting of discomfort at injection site, transient headache, tiredness and loss of appetite.

## Who Should Be Vaccinated

- All adolescents aged 11 to 18 years of age (or entering high school)
- College freshmen who live in dormitories



For additional information visit  
the following websites:

- [www.cdc.gov/mmwr/PDF/rr/rr5407.pdf](http://www.cdc.gov/mmwr/PDF/rr/rr5407.pdf)
- [www.cdc.gov/ncidod/dbmd/diseaseinfo/](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/)
- [www.nmaus.org](http://www.nmaus.org)
- [www.nfid.org](http://www.nfid.org)



# Notes

